

REMARKS/ARGUMENTS

Claims 1-20 are pending in the present application.

This Amendment is in response to the Office Action mailed February 4, 2009. In the Office Action, the Examiner objected to the title, rejected claims 1-9 and 15 under 35 U.S.C. §112; claims 1-2, 5, and 10 under 35 U.S.C. §102(e); and claims 6, 16, and 17 under 35 U.S.C. §103(a). In addition, the Examiner indicated allowable subject matter for claims 3-4, and 7-9 and 11-12, and 18-20 if they are rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicant has amended claims 1, 3, 5, 8-10, 15-16 and 19, and has canceled claims 7 and 17-18. Reconsideration in light of the amendments and remarks made herein is respectfully requested.

Allowable Subject Matter

Applicant notes with appreciation the Examiner's indication of allowable subject matter. The Examiner objects to claims 3-4, 7-9, 11-12, and 18-20 as being dependent on a rejected base claim, but indicates that the claims would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Accordingly, Applicant (i) has amended claim 3 to include elements of independent claim 1, (ii) has amended claim 5 to include elements of independent claim 1 and dependent claim 7, and (iii) has amended claim 16 to include the elements of dependent claims 17-18. Applicant has also canceled claims 7, 17, and 18 without prejudice. Additionally, Applicant has amended claim 8 and 9 to be dependent on claim 5 and has amended claim 19 to be dependent on claim 16.

In light of the arguments set forth herein and the amendments to claims 3, 5, and 16 to include allowable subject matter, Applicant respectfully requests that independent claims 1, 3, 5, 10 and 16 and all claims that depend therefrom be allowed.

Specification

The Examiner objected to the title as being not descriptive. Applicant respectfully disagrees. However, Applicant has amended the specification accordingly. Therefore, Applicant respectfully requests the objection be withdrawn.

Claim Objections

The Examiner objects to claim 10 due to minor informalities. Applicant has amended claim 10 accordingly. More specifically, Applicant has amended claim 10 to recite "...the second isolator to ~~receiver~~ receive a sampled data bit..." Thus, Applicant respectfully requests that the Examiner withdraw the objection to claim 10.

Rejection Under 35 U.S.C. § 112

In the Office Action, the Examiner rejected claims 1-9, and 15 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

Regarding claim 1, the Examiner rejected the language "the first programmable component" for lacking antecedent basis. Applicant has amended the language to recite "the first ~~programmable~~ component" to correct this minor inconsistency.

Regarding claim 15, the Examiner rejected the language "the data frames" and "the serial port number" as lacking antecedent basis. Applicant has amended the dependency of claim 15 to correct this minor inconsistency.

Accordingly, Applicant respectfully requests that the Examiner withdraw the rejection of claims 1-9, and 15 under 35 U.S.C. § 112, second paragraph.

Rejection Under 35 U.S.C. § 102

In the Office Action, the Examiner rejected claims 1-2, 5, and 10 under 35 U.S.C. §102(E) as being anticipated by U.S. Patent No. 6,965,366 issued to Osborne et al. ("Osborne"). Applicant respectfully traverses the rejection and submits that the Examiner has not met the burden of establishing a *prima facie* case of anticipation.

Osborne does not disclose, either expressly or inherently, at least, (1) the first component to transfer information via a first isolator of the plurality of isolators, and (2) the second component to transfer sampled information over the bus via a second isolator of the plurality of isolators, the second isolator being different from the first isolator, as recited solely in amended independent claim 1, (3) a plurality of serial port connectors, (4) the serial line circuit comprises: the first isolator to receive a serial data bit preceded by control information from the first

programmable component for transfer to the second programmable component, and (5) the second isolator to receive a sampled data bit preceded by control information from the second programmable component for transfer to the first programmable component, as recited in independent claim 10.

To anticipate a claim, the reference must teach every element of a claim. “A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” Vergegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ 2d 1051, 1053 (Fed. Cir. 1987). “The identical invention must be shown in as complete detail as is contained in the...claim.” Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 USPQ 2d 1913, 1920 (Fed. Cir. 1989). Since the Examiner failed to show that Osborne teaches or discloses any one of the above elements, the rejection under 35 U.S.C. §102 is improper.

1) Claim 1

Osborne merely discloses the bi-directional isolation system 10 including an isolation barrier 16 that is coupled between a source interface circuit 18 and an isolated interface circuit 20. Isolation barrier 16 may be a conventional bi-directional isolation barrier that is implemented using conventional components, including transformers, capacitors, or opto-isolators (Osborne, col. 4, lines 8-21; Figures 1-2).

In contrast, independent claim 1 now explicitly recites “the first component to transfer information via a first isolator of the plurality of isolators,” and “the second component to transfer sampled information over the bus via a second isolator of the plurality of isolators, the second isolator being different from the first isolator.”

The Examiner alleges that the isolation barrier 16 corresponds to the first isolator and the second isolator of the plurality of isolators. Applicant respectfully disagrees and submits that the isolation barrier 16 cannot be both the first isolator and the second isolator of the plurality of isolators since the first and second isolators are separate elements, as now recited in claim 1 (“the second isolator being different from the first isolator”).

Moreover, that there is no teaching or suggestion that the isolation barrier 16 includes a first and a second isolator, as delineated in the claims. Instead, the isolation barrier 16 is merely a conventional bi-directional isolation barrier (Osborne, col. 4, lines 8-21; Figures 1-2).

In addition, claim 1 delineates that the first component, allegedly the source interface circuit 18, transfers information via the first isolator while the second component, allegedly the isolated interface circuit 20, transfers information via the second isolator. Even assuming that the isolation barrier 16 includes a first and second opto-isolator, there is no teaching that, in a conventional bi-directional isolation barrier, the first component transfers information via a first opto-isolator while the second component transfers information via the second opto-isolator. Accordingly, Osborne fails to disclose this element of claim 1.

2) Claim 10

Regarding claim 10, the Examiner alleges that Osborne teaches “the first isolator to receive a serial data bit preceded by control information from the first programmable component to transfer to the second programmable component, citing Osborne, column 4, lines 56-67. Applicant respectfully disagrees and submits that Osborne merely states:

Referring to FIGS. 3, 4A, 4B and 4C, in one embodiment, source communications interface circuitry 24 of source interface circuit 18 includes a summing circuit 30, a hybrid circuit 32, and a receive data detection circuit 34. Summing circuit 30 is a conventional summing circuit that is configured to sum a data pump side source data signal 36 (SD_{DP}) and a data pump side source clock signal 38 (SCK_{DP}) to produce a multiplex signal 40 (MX_{DP}). Hybrid circuit 32 is configured to superimpose a signal proportional to multiplex signal 40 onto signal 63, and to generate a line side source data signal 42 that is proportional to signal 63 with the superimposed multiplex signal 40 removed (Osborne, column 4, lines 56-67).

Accordingly, there is no teaching or suggestion in the cited portion of Osborne of the first isolator, allegedly the isolation barrier 16, receiving a serial data bit preceded by control information from first programmable component, allegedly the source interface circuit 18.

Similarly, the Examiner alleges that the Osborne teaches “the second isolator to receive a sampled data bit preceded by control information from the second programmable component for transfer to the first programmable component”, citing Figure 5, item SD_{LS} and item 62.

Applicant respectfully disagrees and submits that Figure 5 merely illustrates a block diagram of the isolated interface circuit 20, a line side source data (SD_{LS}) being received at the

line side source data synchronization circuit 54 (Osborne, Figure 5), and the signal 62 includes a signal that is proportional to the multiplex signal 40 and a signal that is proportional to signal 61. The signal 62 also may contain additional signals, such as man-made or naturally occurring signals (e.g., uncorrelated noise and high voltages that may vary with time) (Osborne, col. 5, lines 24-37; Figure 5).

Accordingly, since the signal 62 merely includes a signal proportional to the signal 40 generated in the source interface circuit 18 (Osborne, Figure 3), another signal proportional to signal 61, and noise (Osborne, Figure 5), nothing in signal 62 corresponds to “a sampled data bit preceded by control information” such that Osborne does not disclose this element of the claims.

Moreover, the Examiner alleges that item 14 corresponds to a plurality of serial port connectors, as recited in claim 10. Applicant disagrees and submits that the claim recites “an electronic device comprising: a plurality of serial port connectors...” Osborne merely discloses the bi-directional isolation system 10 providing an isolated communication channel between a data pump 12 and a telephone line 14 (Osborne, col. 4, lines 1-4; Figure 1). A telephone line 14 which is being provided an isolated communication channel cannot be “a plurality of serial port connectors” included in the electronic device, as alleged by the Examiner.

Therefore, Applicant believes that independent claims 1, 3, 5, 10, and 16 and their respective dependent claims are distinguishable over the cited prior art references. Accordingly, Applicant respectfully requests the rejection under 35 U.S.C. §102(e) be withdrawn.

Rejection Under 35 U.S.C. § 103

In the Office Action, the Examiner rejected claim 6 under 35 U.S.C. §103(a) as being unpatentable over Osborne in view of Applicant’s Admitted Prior Art (“AAPA”), claim 16 under 35 U.S.C. §103(a) as being unpatentable over AAPA in view of U.S. Publication No. 2004/0228629 issued to Harris et al. (“Harris”); and claim 17 under 35 U.S.C. §103(a) as being unpatentable over AAPA in view of Harris and further in view of Osborne.

Regarding claim 16, Applicant respectfully disagrees with the rejection but submits that the rejection is moot since independent claim 16 has been amended to include elements of dependent claim 18 which the Examiner has indicated to be allowable subject matter.

Moreover, regarding claims 6 and 17, Applicant respectfully traverses the rejection and submits that the Examiner has not met the burden of establishing a *prima facie* case of obviousness. Based on the dependency of claims 6 and 17 on independent claims 1 and 16, which are believed to be in condition for allowance, Applicant respectfully submits that no further discussion on the grounds of traverse is warranted.

Therefore, Applicant believes that independent claims 1, 10, and 16 and their respective dependent claims are distinguishable over the cited prior art references. Accordingly, Applicant respectfully requests the rejection under 35 U.S.C. §103(a) be withdrawn.

Conclusion

Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

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